INTRODUCTION AND SUMMARY

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The Seligman Airport Master Plan study was undertaken by Yavapai County and the Arizona Department of Transportation (ADOT) - Aeronautics Division to outline a long-range plan for the use of the airport, which will yield a safe, efficient, economical, and environmentally-acceptable air transportation facility.

This master plan is a timely reassessment of the development direction of the airport with regards to changes in the general aviation industry and local economy. General aviation has experienced a resurgence in recent years, particularly as it relates to business aviation. With changes occurring in the general aviation aircraft fleet mix, it is important to evaluate the impact of future general aviation facility needs.

An important part of the process was public involvement. The planning process included a Planning Advisory Committee (PAC), which directly reviewed study materials and provided input. The PAC was comprised of local citizens, airport users, as well as other state, regional, and local government agencies. Yavapai County staff also took part in the committee meetings. The committee met four times during the study to review the information and findings, and to provide input and comment throughout the process. Local citizens were also able to review and comment on the planning study through Public Information Workshops (PIWs). The PAC and PIWs were instrumental in shaping the final airport plan.

The preparation of this master plan is evidence that Yavapai County and ADOT recognize the importance of general aviation to the community and the associated challenges inherent in providing for its unique operating and improvement needs. With a sound and

realistic master plan, Seligman Airport can maintain its role as an important link in the local, regional, and national air transportation system, and the community can continue to realize the economic benefits from the public and private investments in the facility.

AIRPORT ROLE

The federal government has had an important role in the development of airports in the United States. Many of the nation's existing airports were either initially constructed by the federal government, or their development and maintenance was partially funded through various federal grant-in-aid programs to local communities. In large measure, the system of airports existing today is due to the existence of federal policy that promotes the development of civil aviation. As part of its effort to maintain a system of airports to meet the needs of civil aviation and promote air commerce, the United States Congress has continually supported a national plan for the development and maintenance of airports.

The current national airport system plan is the *National Plan of Integrated Airport Systems* (NPIAS). A primary purpose of the NPIAS is to identify the airports that are important to national transportation. This includes all commercial service airports, all reliever airports, and selected general aviation airports. A total of 3,489 airports are identified in the NPIAS, of which 3,364 are existing airports and 125 are proposed airports. The study indicated that Seligman Airport is not currently included in the NPIAS. Recommended development will require state and federal funding assistance. It is highly recommended that Yavapai County continue to solicit approval for the airport's inclusion in the NPIAS. If included, the airport would become eligible for federal grant-in-aid funds as well as annual federal entitlement funds. At this time, the airport is only eligible for state grant funds.

DEMAND-BASED PLANNING

The proper planning of a facility of any type must consider the demand that may occur in the future. For Seligman Airport, this involved updating forecasts to identify potential future aviation demand. Because of the cyclical nature of the economy, it is virtually impossible to predict, with certainty, year-to-year fluctuations in activity when looking five, ten, and twenty years into the future.

Recognizing this reality, the Master Plan is keyed more to potential demand "horizon" levels than future dates in time. These "planning horizons" were established as levels of activity that will call for consideration of the implementation of the next step in the Master Plan program. By developing the airport to meet the aviation demand levels instead of specific points in time, the airport will serve as a safe and efficient aviation facility which will meet the operational demands of its users, while being developed in a cost-efficient manner. This program allows

the County to change specific development in response to unanticipated needs or demand. The forecast planning horizons are summarized in **Table A**.

TABLE A
Planning Horizon Activity Levels
Seligman Airport

	2003	Short Term	Intermediate Term	Long Term
Based Aircraft	1	2	4	10
Annual Operations	3,500	6,000	10,000	15,000

AIRPORT PLANS

The Master Plan for Seligman Airport provides for the orderly use of existing airport facilities to enhance the safety of aircraft operations, maintain existing airfield and terminal facilities, and support future aviation demand (should new levels of demand be experienced). The master plan includes provisions to ensure the long-term viability of the airport by maximizing available areas at the airport for aviation-related opportunities. **Exhibit A** depicts elements of the master plan for Seligman Airport.

AIRFIELD RECOMMENDATIONS

The principal airfield recommendations focus first upon safety and efficiency. It is of key importance to ensure that airport design standards are upheld to the maximum extent feasible, particularly in relation to the runway safety area (RSA) and object free area (OFA). Other recommendations are provided to improve the efficiency on the airfield.

Runway 4-22 is currently 4,800 feet long by 75 feet wide. The recommended concept, shown on **Exhibit A**, provides a runway length fully capable of accommodating ARC B-II aircraft needs, especially during hot weather conditions. Accordingly, the plan includes the extension of Runway 4-22 1,900 feet northeast. This extension will allow the runway to provide adequate operational length for the full array of ARC B-II aircraft, including many business jets carrying moderate loads.

In order to extend the runway to the northeast, additional property needs to be acquired. As depicted, the plan includes the future acquisition of 63.2 acres, including 16.6 acres along the eastern portion of the runway and 46.6 acres at the northern end of the runway. Moreover, the plan includes rerouting the drainage channel under the runway extension through piping

and/or box culvert. The resultant plan will provide a runway capable of serving ARC B-II that also meets FAA and ADOT safety standards.

The recommended concept considers maintaining the existing runway width and upgrading pavement strength for Runway 4-22. The runway is currently 75 feet wide, meeting FAA criteria for ARC B-II aircraft design. Also, the existing pavement strength is not adequate to accommodate large aircraft (those weighing more than 12,500 pounds) on a regular basis. The plan considers upgrading the pavement strength to at least 25,000 pounds single wheel gear loading (SWL) strength.

Analysis indicated that Runway 4-22 does not currently conform with FAA design standards for the RSA or the runway OFA. Currently, fencing and a drainage channel obstruct the OFA and RSA. It should be noted that the RSA requirements include a stabilized area capable of supporting the design aircraft during over-run or undershoot operations. The existing RSAs, both north and south, do not conform to FAA standards for ARC B-II aircraft. Both RSAs should be improved 300 feet beyond the runway pavement edge and 75 feet to either side of the runway centerline (150 feet total width) in the future.

The plan also considers meeting FAA runway OFA standards. As mentioned in the previous chapter, the existing and future OFA is hindered at the southwestern corner and along the southeastern portion of the runway by perimeter fencing. The plan includes the acquisition of property to the northeast and northwest from the Navajo Nation. The property could be fully acquired fee simple or through an avigation or other easement. The intent is to simply move the fence line outside of the OFA, as the ultimate development concept does not include placing facilities on the northern side of the airport. As a result, the fence needs to be relocated 101 feet further north. The perimeter fence will need to be relocated at the southwesternmost corner of the airport as well.

The recommended development concept includes taxiway improvements. The existing parallel taxiway is located 240 feet east of the runway. As depicted on **Exhibit A**, the recommended concept includes the extension of the parallel taxiway located 240 feet east of Runway 4-22. Also depicted is the addition of an entrance/exit taxiway located at the extended end of the runway.

LANDSIDE IMPROVEMENTS

The primary goal of landside facility planning is to provide adequate spaces while also maximizing operational efficiencies and land uses. Achieving this goal yields a development scheme which segregates aircraft users (large vs. small aircraft) while maximizing the airport's revenue potential.

Exhibit A depicts the recommended landside development plan for the airport. As depicted, the plan includes aviation facility development in and

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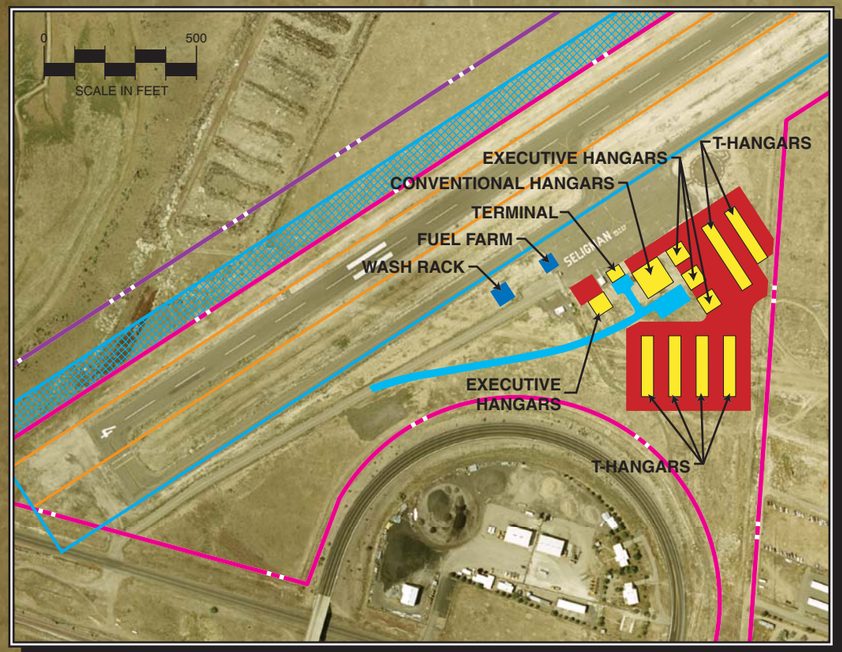

AWOS SITE 2

500'

LEGEND

- Existing Airport Property Line
- Ultimate Property Line
- Ultimate Airfield Pavement
- Ultimate Building
- Ultimate Road/Parking
- Runway Safety Area (RSA)
- Obstructed RSA
- Object Free Area (OFA)
- Obstructed OFA
- Runway Protection Zone (RPZ)

NORTH

0 800 1600

SCALE IN FEET

Date of Photo: 5/25/03

SELIGMAN AIRPORT

Exhibit A
RECOMMENDED DEVELOPMENT CONCEPT

around the existing aircraft apron and restroom facilities. The plan considers allowing the apron to serve as the future development focal point, or flight line.

The existing terminal facilities consist of the apron, sheltered restroom, and electrical vault/storage. The recommended plan considers the development of a terminal building facility to be consolidated with the existing restroom facility. The terminal area is supported with a road providing a direct link to Historic Route 66 to the south. This road is planned to be rerouted to allow future development expansion potential south of the existing apron. Furthermore, the road would lead into a proposed parking lot which would serve the terminal building and hangar facilities.

It is envisioned that corporate and other larger aircraft needs will be met with facilities at the north and south ends of the apron. The plan considers developing two 100-foot by 100-foot hangars centrally on the existing apron. Also, the plan calls for the southerly extension of the apron to accommodate corporate/executive hangars (60-foot by 60-foot). The expansion could support larger hangars such as 80-foot by 80-foot as well.

Immediately east of the proposed flight line, T-hangars are planned. As depicted, the T-hangar area could support four T-hangar facilities providing 50 individual storage units. The plan calls for the development of a taxilane leading from the northern edge of the existing apron. This taxilane would provide ingress/egress with the T-hangar area, as well as a planned aircraft wash rack just west of the existing apron and planned taxiway.

The ultimate landside plan far exceeds the needs and goal of this planning effort. Consideration of facility development beyond the scope of this planning effort will, however, provide the County with a vision which will yield a first-class aviation facility capable of generating revenues which exceed operational costs. It should be noted that the development of all facilities should consider aesthetics a high priority. The airport is often the first and last impression that the airport user has of the community. Consideration should always be given to the development of facilities which meet aviation demand while presenting a positive image to all users.

CAPITAL NEEDS FINANCING

The master plan has identified approximately $4.1 million in capital needs over the planning period (see **Table B**). Nearly 90 percent of the total costs are eligible for grant-in-aid from ADOT and/or the FAA (if the airport is included in the NPIAS). State or federally-eligible projects can receive up to 95 percent federal funding from the ADOT or the FAA.

TABLE B
Development Funding Summary
(Million $)

Planning Horizons	Total Needs	ADOT/FAA Eligible	Local Share
Short Term	$429,000	$353,050	$75,950
Intermediate Term	257,500	244,625	12,875
Long Range	3,410,000	2,645,750	764,250
TOTAL	$4,096,500	$3,243,425	$853,075

Note: ADOT/FAA share considers the amount eligible for state or federal funding assistance. Actual grants for each project could be less.